

AB The present invention refers to a process for the catalytic epoxidation of olefins in the presence of a titanium containing zeolite catalyst and a polar solvent whereby the deactivation of the catalyst upon recycling of the solvent has been considerably reduced. In the process one or more nitrogen containing compds. are introduced at some stage, a solvent stream is recovered, treated to contain less than 50 wppm nitrogen in the form of organic nitrogen compds. and at least a part of it is recycled to the epoxidation step. The invention is also directed towards a process for the catalytic epoxidation of propene when integrated with the reactive treatment and recycle of the solvent into the workup of the reaction mixture

L10 ANSWER 2 OF 3 CAPLUS. COPYRIGHT 2004 ACS ON STN (Continued)  
hydro-alc. mixt. of the flash column bottom, is used, when necessary, for  
dig. the alc. or hydro-alc. soln. of hydrogen peroxide  
obtained in step (a) to the value required by the epoxidn.  
plant. The process operates under high safety conditions and  
with a high overall efficiency, in terms of productivity and selectivity.  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 200104299	A1	20020221	WO 2001-EP9076	20010806
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DP, EC, EE, ES, FI, FG, GD, GE, GH, GM, HR, HU, ID, TL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, BG, KZ, MA, MD, MG, MW, TZ, TY, RW: GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, IJ, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2300011884	A1	20020211	IT 2000-M11884	20000811
IT 1318682	A1	20030827		
AU 2002013848	A5	20020225	AU 2002-13848	20010806
EP 1307435	A1	20030507	EP 2002-882202	20010806
EP 1307435	B1	20040225		
R: BE, DE, ES, FR, GB, NL, SI, LT, LV, RO, MK, AL				
JP 2004050627	T2	20040304	JP 2002-519441	20010806
US 2004054200	A1	20040318	US 2003-343832	20030925
PRIORITY APPLN. INFO.			IT 2000-M11884	A 20000811
			WO 2001-EP9076	W 20010806

AB The present invention relates to an integrated process for the preparation in continuous of epoxides which comprises: (a) preparing an alc. or hydro-alc. solution of hydrogen peroxide in a concentration of over 3%, using a gaseous stream containing hydrogen, oxygen and an inert gas, in the presence of a bimetallic catalyst based on palladium and platinum as active components; (b) putting the alc. or hydro-alc. solution of hydrogen peroxide obtained in step (a) in contact with an olefin and a buffering agent, in the presence of an epoxidm. catalyst suspended in the reaction solvent, in order to obtain a reaction mixture containing the epoxide corresponding to the olefin, water and alc. solvent; (c) treating the alc. stream leaving step (b), after separation of the epoxide, in order to eliminate the nitrogenated compds. present; (d) feeding the alc. solvent obtained in (c) to step (a). The process may comprise a further step (e), wherein the raw

110 ANSWER 3 OF	CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:	2001:98455 CAPLUS
DOCUMENT NUMBER:	134:147992
TITLE:	Production of epoxides by epoxidation of olefins with regeneration of catalyst
INVENTOR(S):	Ponceau, Marianne; Muller-Markgraf, Wolfgang
PATENT ASSIGNEE(S):	Linde Aktiengesellschaft, Germany
SOURCE:	Eur. Pat. Appl., 9 pp. CODEN: EPXDXW
DOCUMENT TYPE:	Patent
LANGUAGE:	German
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1074547	A1	20010207	EP 1999-115532	19990805
R: A7, BE, CH, IE, SI, LT,	DE, DK, LV, FI, RO	ES, FR, GB,	GR, IT, LI, LU, NL,	SE, MC, PT,
PRIORITY APPLN. INFO.:			EP 1999-115532	19990805

AB In the liquid-phase epoxidn. of ethylene and propylene to their  
resp. oxides over a catalyst in the presence of H<sub>2</sub>O<sub>2</sub> in a  
reactor, the catalyst is regenerated outside the reactor with  
aqueous H<sub>2</sub>O<sub>2</sub> in the absence of olefin, while using MeOH as solvent  
in both processes. Examples were given for a Ti/silicate catalyst  
in the production of propylene oxide; product yield was around 80%  
throughout 7  
catalyst recycles.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

=> d his

(FILE 'HOME' ENTERED AT 18:37:43 ON 13 NOV 2004)

FILE 'CAPLUS' ENTERED AT 18:38:01 ON 13 NOV 2004

L1 161833 S OLEFIN?  
L2 97137 S OLEFINS  
L3 0 S L1 AND EPOSID?  
L4 6072 S L1 AND EPOXID?  
L5 2926 S L4 AND (PROCESS OR MAKE OR MADE OR SYNTHES? OR PREPAR?)  
L6 1452 S L5 AND EPOXIDATION  
L7 1179 S L6 AND CATALY?  
L8 265 S L7 AND HYDROGEN PEROXIDE  
L9 25 S L8 AND TITANIUM SILICATE  
L10 3 S L9 AND NITROGEN?

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	40.73	40.94
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.10	-2.10

STN INTERNATIONAL LOGOFF AT 18:43:17 ON 13 NOV 2004